

ABSTRACT

“Tagging XML Query Results Over Relational DBMSs”

A method for publishing relational data as XML by translating XML queries into queries against a relational database. Conversion of the relational database into an XML database is not required. Each relational table is mapped to a virtual XML document, and XML queries are issued over these virtual documents. An XML query is parsed and transformed into a language-neutral intermediate representation, which is a sequence of operations describing how the output document is derived from the underlying relational tables. The intermediate representation is then translated into an SQL query over the underlying relational tables. The intermediate representation is also used to generate a tagger graph, which the tagger runtime ‘walks’ to generate the tagged, structured XML output. Each of the nodes of the tagger graph are operators which perform processing on the results of the SQL query. The SQL query is executed, and the SQL query results are then provided to the tagger. The tagger runtime applies the operators of each node to the inputs at that node to produce the structured XML document as a query result, guided by the structure of the tagger graph.